VIA EDGAR

May 29, 2020

Office of Life Science Division of Corporation Finance U.S. Securities and Exchange Commission 100 F Street, N.E. Washington, D.C. 20549

Attn: Donald Field Justin Dobbie

Re: Pliant Therapeutics, Inc.

Acceleration Request for Registration Statement on Form S-1

File No. 333-238146

Requested Date: June 2, 2020

Requested Time: 4:00 p.m. Eastern Standard Time

Dear Messrs. Field and Dobbie,

Pursuant to Rule 461 under the Securities Act of 1933, as amended (the "Act"), Pliant Therapeutics, Inc. (the "Company") hereby requests that the effective date of the above-referenced registration statement (the "Registration Statement") be accelerated to June 2, 2020, at 4:00 p.m., Eastern Time, or as soon thereafter as practicable, unless we or our outside counsel, Goodwin Procter LLP, request by telephone that such Registration Statement be declared effective at some other time. In making this acceleration request, the Company acknowledges that it is aware of its responsibilities under the Act

Once the Registration Statement is effective, please orally confirm the event with our counsel, Goodwin Procter LLP by calling Carolyn Ward at (617) 570-1376. We also respectfully request that a copy of the written order from the Securities and Exchange Commission (the "Commission") verifying the effective time and date of the Registration Statement be sent to our counsel, Goodwin Procter LLP, Attention: James Xu, by facsimile to (617) 801-8979.

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If you have any questions regarding this request, please contact Carolyn Ward of Goodwin Procter LLP at (617) 570-1376.

Sincerely,

PLIANT THERAPEUTICS, INC.

/s/ Bernard Coulie

Name: Bernard Coulie, M.D., Ph.D. Title: President and Chief Executive Officer

cc: Keith Cummings, M.D., Chief Financial Officer, *Pliant Therapeutics, Inc.* Sam Zucker, Esq. and Deepa M. Rich, Esq., *Goodwin Procter LLP*

[Signature Page to Acceleration Request]